



A Descriptive causal comparative study on teachers' research performance: A basis for research management plan

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Abstract

This research study aimed to assess the research performance among the teachers in the District III of Bunawan, Agusan del Sur. The study employed a descriptive causal-comparative research design to determine if there were significant differences in teachers' research performance based on demographic profiles in Bunawan District III, Agusan del Sur. The research involved 154 teachers from nine schools, employing a modified version of Caingcoy's questionnaire to assess various aspects of their research capabilities, attitudes, motivation, and skills. Data were collected, tallied, and analyzed using frequency counts, weighted means, and ANOVA to establish validity, reliability, and significance of differences in research performance. The results of the data collected from 154 teachers regarding their demographic profiles and research performance revealed that the majority of respondents were aged 30-39 (31%) and held a Bachelor's degree (83%), with most teachers being in the position of Teacher I (53%) and having 10-19 years of service (32%). The research performance was generally high across various indicators, with action research skills being rated very high; however, ANOVA tests showed no significant differences in research performance based on age, educational attainment, teaching position, or years in service. Teachers in District III of Bunawan, Agusan del Sur generally exhibit high research performance and motivation, though they face significant challenges with research tools and techniques, and demographic factors do not significantly affect their research capabilities, indicating a need for targeted interventions and continuous learning.

Keywords: A descriptive causal comparative study, teachers' research performance, research management plan

Introduction

Performance in research is a crucial aspect of teachers' professional development and contribution to the academic community. Teachers that participate in research activities are seen to have a stronger understanding of their subject matter, use evidence-based instructional practices, and encourage critical thinking abilities in their learners. With research as a vital source of knowledge and facts, teachers must develop a culture of research as it will provide them with significant advancements through promotions and as part of their professional capabilities that will benefit the school system, community and stakeholders. Thus, enhanced teachers' research performance leads to excellence in education, non-bias learning and meaningful student outcomes.

The research performance of teachers conducted internationally is a vital aspect of educational development and innovation. Several studies have explored this topic, shedding light on the impact of teachers' research endeavors on student learning outcomes and instructional practices. For instance, a study by Hattie *et al* (2016) ^[19] examined the relationship between teachers' engagement in research and their effectiveness in the classroom, revealing a positive correlation between the two factors. Moreover, the research conducted by Robinson and Lai (2017) ^[28] emphasized the importance of international collaboration among teachers in enhancing research performance. Overall, the research performance of teachers on an international scale plays a pivotal role in shaping effective pedagogical practices and fostering educational growth.

Furthermore, the Department of Education in the Philippines started the institutionalization of research, which created a methodical development process and encouraged

the establishment of research-based, evidence-based policies. Similarly, it has created criteria for the use of the Basic Education Research Fund and offers financial assistance to researchers under DO No. 43, s. 2015 (DepEd, 2015, 2016). But even with the Department of Education's best efforts, teacher output in research remains low (Vinluan, 2017) ^[34]. The findings of earlier research studies concentrated on the state of teachers' research productivity (Kusure, Mutanda, Maware, & Dhliwayo, 2018) ^[24]; however, fewer studies were carried out to examine the underlying factors that contribute to teachers' low productivity, such as their conceptions and challenges when conducting research.

Locally, in the District of Bunawan III pursuing research were not highly implemented, also, the researcher found out that previous IPCR rating of teachers were low in terms of research outputs. The researcher observed that there are teachers who have less knowledge in choosing a suitable research methodology, insufficient of support from the institutions, and lack of motivation to do research. This absence of research evaluating teachers' research performance hinders the identification of best practices and areas for improvement in the research efforts of educators. Thus, the researcher was eager to undertake this study to determine whether research performance of teachers is comparable when they are grouped by demographic profile as the foundation for developing a Research Management Plan. As a result, it was intended that the study produced fresh and useful data that can be used to make sound recommendations.

Materials and Methods

Research Design

A descriptive causal comparative research design was used for this investigation. It is the process of contrasting two or more objects in order to learn anything about one or more of the objects under comparison. It is mostly employed when the goal of the study is to compare the variables characterizing the research samples as they occur naturally and characterize the traits of the person or events (Siedlecki, 2020) [31].

The goal of the research design in this study was to ascertain if there were any appreciable differences in the research performance of teachers when the respondents were categorized based on their demographic profile.

Research Subject

The respondents of this study are 154 teachers in the District III of Bunawan, Agusan del Sur. The selection of the participants for this study was based on the research problem and research questions. The sample size was determined using Universal Sampling.

Research Instrument

A modified version of Caingcoy's research questionnaire was used in this study (2020). This survey will be divided into two (2) sections. The respondent's age, greatest level of education attained, teaching position, and years of employment were all determined in the first section. The questions in the second section focused on the teacher's research performance in terms of their capacity to do research, their attitudes towards it, their drive to write about it, the complexity and ease of the research procedures, their ability to organize their actions, and their mentoring abilities. This will have ten questions about the following: the capacity to do research; attitudes towards research; motivation; difficulty and non-difficulty of the research procedures; action planning abilities; and mentoring skills.

Participants' answers on their level of research capacity to conduct research from highly capable (4) to not capable (1). Regarding research attitudes towards to conduct research, they will choose between strongly agree (4) and strongly disagreeing (1). They will select between an extremely high level of difficulty (4) and high level of non-difficulty (1) based on the degree of difficulty and non-difficulty in various research techniques. Participants' responses range from "very capable of planning" (4) to "not at all capable" (1) for action planning skills. Respondents will select one of two options for the mentoring skills: really true to me (4) or not true at all (1).

Moreover, the data gathered regarding the teacher's research performance were obtained by adding scores in all statements, then the level of these variables was determined using the Likert scale, shown below is the scoring and interpretation of data.

Likert Scale Basis for Research Performance among Teachers

Rating	Interval	Descriptive Interpretation
4	3.5 – 4.0	Very High
3	2.5 – 3.4	High
2	1.5 – 2.4	Moderate
1	1.0 – 1.4	Low

Validation of Instrument

The researcher conducted a pilot test on her adopted questionnaires to test the instrument's validity. The pilot testing was conducted in the different schools in the other

District with 22 respondents. The researcher explained to the School Administrator and the respondents the importance of conducting the pilot testing and the significance of it to make this study reliable.

Data Gathering Procedure

The researcher wrote a letter to the Division Office requesting authorization to carry out this investigation. They would be informed about the purpose of the study, and it was really appreciated that they cooperated as much as they could. The teachers who agreed to participate were given the study tools by the researcher. In order to protect the secrecy of the answers, the instruments were collected right away.

Following the collecting of data, the researcher tallied, compiled, and tabulated the replies before sending them to a statistician for statistical analysis. The four-point Likert scale was used for analysis and interpretation of the data.

Statistical Treatment of the Data

The study employed various statistical instruments to analyze data, ensuring the validity and reliability of the results. Frequency Count and Percentage were used to profile the teachers, representing data through frequency tables and visuals. The Weighted Mean assessed teachers' research performance, including their aptitude, attitudes, motivation, and mentoring abilities. Analysis of Variance (ANOVA) was utilized to determine if there were statistically significant differences between group means. These methods facilitated a comprehensive understanding of the teachers' research capabilities and their distribution across different variables.

Results and Discussion

Demographic profile of Respondents in terms of Age

The tables below provide the results for the first statement of the issue, which looks at the respondents' demographics in terms of age, greatest educational attainment, teaching position, and years of service.

Table 1: Demographic profile of Respondents in terms of Age

Age level	Frequency	Percentage
20-29	45	29%
30-39	47	31%
40-49	38	25%
50-59	24	16%
TOTAL	154	100%

A total of 154 teachers responded to the study where majority are from the ages between 30-39 which is 31% of the total respondents, from ages between 20-29 which is 29%, from ages between 40-49 which is 25% and from ages between 51 and above as 16%.

Demographic profile of Respondents in terms of Highest Educational Attainment

The table below presents the results to the first statement of the problem that examines the demographic profile in terms of Highest Educational Attainment.

Table 2: Demographic profile of Respondents in terms Highest Educational Attainment

Educational attainment	Frequency	Percentage
Bachelor's Degree Holder	128	83%
Completed Master Degree	26	17%
Total	154	100%

A total of 154 teachers responded to the study where 128 teachers are Bachelor’s degree holders attributing to 83% and 26 teachers are full-fledged Master’s degree holder which is 17% of the total number of respondents.

Demographic profile of Respondents in terms of Teaching Position

Table 3 presents the results to the first statement of the problem that examines the demographic profile in terms of Teaching Position.

Table 3: Demographic profile of Respondents in terms of Teaching Position

Teaching position	Frequency	Percentage
Teacher I	81	53%
Teacher II	18	12%
Teacher III	48	31%
Master teacher	6	4%
Total	154	100%

A total of 154 teachers responded to the study where 81 teachers are Teacher I, 18 teachers are Teacher II, 48 teachers are Teacher III and 6 teachers are Master Teachers, attributing to the 53%, 12%, 31% and 4% of the total number of respondents, respectively.

Demographic profile of Respondents in terms of Years in Service

Table 4 shows the results to the first statement of the problem that examines the demographic profile in terms of Years in Service.

Table 4: Demographic profile of Respondents in terms of Years in Service

Years in service	Frequency	Percentage
1-9 years	40	26%
10-19 years	49	32%
20-29 years	23	15%
30-39 years	42	27%
Total	154	100%

Out of the 154 teachers who responded in the study, 40 or 26% have been teaching between 1-9 years, 49 or 32% between 10-19 years, 23 or 15% between 20-29 years, and 42 or 27% have been teaching for 30-39 years already.

Level of Teacher's Research Performance

This section presents the findings from the second statement of the problem, which examines the level of Teacher Research Performance based on Capability to Conduct Research, Attitudes toward Research, Motivation toward Research, Difficulty and Non-Difficulty in Research Processes, Action Research Skills, and Mentoring Skills.

Table 5: Teachers’ Research Performance

Indicator	Mean	Description
Capability to Conduct Research	3.1	High
Attitudes towards Research	3.1	High
Motivation to Write Research	3.1	High
Difficulty and Non-Difficulty in Research Process	3.1	High
Action Research Skills	3.5	Very High
Mentoring	3.0	High
Total Mean	3.2	High

Table 5 indicates that the teachers are high in terms of research performance as evidenced by the mean of 3.2. It has been observed that the indicator “Action Research Skills” with a mean of 3.5 interpreted very high was the highest among the indicators. It is followed by “Capability to Conduct Research”, “Attitudes towards Research”, “Motivation to Write Research”, “Difficulty and Non-Difficulty in Research Process”, with a mean of 3.1 interpreted high. The least among the indicators is “mentoring” with a mean of 3.0 interpreted high.

Significant difference between Research performance and the Demographic Profile of the Respondents

The comparative examination of teachers' research performance by age is displayed in the table below. The findings suggested that there isn't a big difference. They are hence equivalent. This indicates that the age distribution of the District III teachers in Bunawan, Agusan del Sur is unaffected by the research performance.

Comparative Analysis of Research Performance of Teachers in terms of Age

Table 6 shows the comparative analysis of research performance of teachers in terms of age.

Table 6: Comparative Analysis of Research Performance of Teachers in terms of Age

Anova - Trp					
Cases	Sum of Squares	df	Mean Square	F	p
Age	5.105	3	1.702	0.497	0.685
Residuals	410.637	120	3.422		
<i>Note.</i> Type III Sum of Squares					

Dr: No Significant Difference

Table 6 presents the results of an ANOVA test examining the research performance of teachers across different age groups. The ANOVA, which utilized Type III Sum of Squares, found no significant difference in research performance based on age. The sum of squares for age was 5.105 with 3 degrees of freedom, yielding a mean square of 1.702. The residual sum of squares was 410.637 with 120 degrees of freedom, resulting in a mean square of 3.422. The F-value, a measure of the ratio of the variance explained by the model to the variance within the groups, was calculated to be 0.497. The p-value associated with this F-value was 0.685, indicating that the differences in research performance among the age groups were not statistically significant at conventional levels.

Comparative Analysis of Research Performance of Teachers in terms of Highest Educational Attainment

Table 7 shows the comparative analysis of research performance of teachers in terms of highest educational attainment.

Table 7: Comparative Analysis of Research Performance of Teachers in terms of Highest Educational Attainment

Anova - Trp					
Cases	Sum of Squares	df	Mean Square	F	p
HEA	0.407	1	0.407	0.120	0.730
Residuals	415.335	122	3.404		
<i>Note.</i> Type III Sum of Squares					

Dr: No Significant Difference

Table 7 shows the results of an ANOVA test analyzing the research performance of teachers based on their highest educational attainment. The ANOVA, using Type III Sum of Squares, indicated no significant difference in research performance related to the highest level of education attained by the teachers. The sum of squares for highest educational attainment was 0.407 with 1 degree of freedom, resulting in a mean square of 0.407. The residual sum of squares was 415.335 with 122 degrees of freedom, leading to a mean square of 3.404. The F-value, representing the ratio of variance explained by the model to the variance within the groups, was 0.120. The associated p-value was 0.730, which is not statistically significant. This suggests that the highest educational attainment of teachers does not significantly affect their research performance in this study.

Comparative Comparison of Teachers' Research Performance According to Their Teaching Positions

Table 8 presents a comparative comparison of teachers' research performance according to their teaching positions.

Table 8: Comparative Analysis of Research Performance of Teachers in terms of Teaching Position

Anova - Trp					
Cases	Sum of Squares	df	Mean Square	F	p
TP	5.474	3	1.825	0.534	0.660
Residuals	410.268	120	3.419		
<i>Note.</i> Type III Sum of Squares					

Dr: No Significant Difference

Table 8 presents the results of an ANOVA test assessing the research performance of teachers based on their teaching positions. The analysis, using Type III Sum of Squares, found no significant differences in research performance across different teaching positions. The sum of squares for teaching position was 5.474 with 3 degrees of freedom, resulting in a mean square of 1.825. The residual sum of squares was 410.268 with 120 degrees of freedom, yielding a mean square of 3.419. The F-value, which measures the variance explained by the model relative to the variance within the groups, was 0.534. The associated p-value was 0.660, indicating no statistically significant differences. Therefore, the teaching position does not significantly impact the research performance of teachers in this sample.

Comparative Analysis of Research Performance of Teachers in terms of Years in Service

The comparative study of research performance of teachers by number of years of employment is displayed in Table 9.

Table 9: Comparative Analysis of Research Performance of Teachers in terms of Years in Service

Anova - Trp					
Cases	Sum of Squares	df	Mean Square	F	p
YIS	5.477	3	1.826	0.534	0.660
Residuals	410.264	120	3.419		
<i>Note.</i> Type III Sum of Squares					

Table 9 displays the results of an ANOVA test evaluating the research performance of teachers based on their years in service. The analysis, using Type III Sum of Squares, revealed no significant differences in research performance related to the length of service. The sum of squares for years in service was 5.477 with 3 degrees of freedom, yielding a

mean square of 1.826. The residual sum of squares was 410.264 with 120 degrees of freedom, resulting in a mean square of 3.419. The F-value, which compares the variance explained by the model to the variance within the groups, was 0.534. The corresponding p-value was 0.660, indicating no statistically significant differences. Therefore, the number of years teachers have been in service does not significantly affect their research performance in this study.

Crafting of Research Management Plan

The fourth problem in this study addressed the development of a Research Management Plan aimed at enhancing teachers' research capabilities in District III Bunawan, Agusan del Sur. The plan includes a Research Literacy Initiative to improve teachers' research skills, attitudes, motivation, and mentoring abilities through hands-on and experiential training. The study found that teachers had a "High" level of research performance and "Very High" action research skills. Consequently, the Research Management Plan, named PROJECT FRAME, was proposed to foster an inclusive research culture and increase research engagement among teachers, with structured training and regular assessments. The plan outlines objectives, activities, and implementation strategies to achieve significant improvements in research productivity and application. The project is set to run from September 2023 to June 2024, with specific financial and resource allocations.

Discussion

Before continuing to explain the analysis of the results, it is informed that the presentation of the discussion follows the construct: first, elaborating the level of competency of the research subjects, pre- and post-intervention week, between two groups in terms of reading comprehension and problem-solving; next will be the significance of the relationship between conventional strategy and problem-solving ability in mathematics by examining if there exist significant difference between the pre- and post-test scores of the control group; and finally, discussion will proceed on the significance of the relationship between comprehension-oriented learning strategies and problem-solving ability in mathematics by scrutinizing whether there is a significant difference between the pre- and post-test scores of the experimental and the post-test scores between two groups.

Demographic profile of Respondents in terms of Age. It can be established from this age profile group that most teachers belong to the establishment phase of their careers. Therefore, this group can be characterized as those in entry-level or mid-level positions with comparably minor responsibilities that allow them to focus on developing and improving their research skills. Teachers in this stage want career stability and may be driven by a determination to accomplish a particular task, such as engaging in scholarly works such as research. Shivani (2020) [29] suggests that teachers at this career stage aim to take on greater responsibilities, accept challenges, and develop skills in any learning field.

Demographic profile of Respondents in terms of Highest Educational Attainment. This study compared the research performance of teachers who have completed collegiate degree and those with Master's degrees. It is assumed in many studies that educational advancement also goes alongside competencies. Hence, this study investigated

whether those with Master's degrees have a significant level of research performance than those with collegiate degrees. Bulilan (2023) ^[6] suggests that educational attainment is a factor that drives teachers' competencies.

Demographic profile of Respondents in terms of Teaching Position. Based on the profile group, it can be inferred that most respondents are in the starting rank. This indicates that teachers are generally young and have started their teaching job in the subject school. This also indicates that most teachers in the said school do not yet acquire the qualifications needed to be promoted to higher ranks. In this case, this group should gain more research skills as it is among the criteria needed for rank promotion. In this study, the teachers' performance in research is explored for comparison based on their teaching rank. According to Comon and Corpuz (2024) ^[9], acquiring research abilities is frequently mentioned as a crucial requirement for teacher advancement to higher positions in educational establishments. Numerous scholarly investigations have emphasized the importance of research proficiency in the advancement procedure. Senior positions within their university were more likely to be attained by teachers who showed more productivity in their research.

Demographic profile of Respondents in terms of Years in Service. Based on this result, it can be established that most teachers have rendered their service for 10-19 years, a considerable year to develop and gain academic-related expertise such as research skills. Therefore, these groups of teachers are expected to be exposed to meaningful programs related to developing their competencies in research. This study used years of experience as a grouping variable to compare the teachers' research performance. With more than 10 years of experience, experienced educators make up a cohort that has probably participated in a number of professional development programs designed to improve their ability to teach and further their careers. The significance of providing specialized professional development opportunities for seasoned educators, with a focus on the continuous assistance required in fields like data analysis, research technique, and academic writing (Hadar & Brody, 2015) ^[17].

Level of Teacher's Research Performance. The high mean score of 3.5 suggests that teachers possess strong capabilities in conducting action research. This is significant as action research is a vital tool for educators to improve their teaching practices and enhance student learning outcomes. With a mean score of 3.2, teachers exhibit a solid ability to conduct research. This skill is crucial not only for advancing the academic knowledge base but also for addressing educational challenges through evidence-based practices. The positive mean score of 3.1 reflects teachers' favorable attitudes towards research endeavors. A positive attitude is conducive to engaging in research activities willingly and persistently. Teachers' motivation to write research, indicated by a mean score of 3.1, suggests a satisfactory level of intrinsic or extrinsic drive to disseminate their findings. Motivation plays a pivotal role in sustaining research productivity. The mean score of 3.1 indicates that teachers perceive the research process as moderately challenging, yet manageable. Understanding the specific challenges and facilitating factors in the research process is essential for supporting teachers' research endeavors effectively. Despite receiving a mean score of 3.0, which is still interpreted as high, mentoring appears to

be the least emphasized aspect among the indicators. Effective mentoring relationships can significantly contribute to teachers' professional growth and research capacity.

According to Mahani *et al.* (2012) ^[26] that teachers are encouraged to work with their colleagues and do action research to address issues related to their classroom practices and teaching. Educators who seek to do research in their classrooms or schools with the goal of enhancing teaching, testing educational theory, or evaluating and implementing an educational plan are instances of action research in educational settings. Action research skill is crucial not only for advancing the academic knowledge base but also for addressing educational challenges through evidence-based practices (Crawford, 2022) ^[10]. Motivation plays a pivotal role in sustaining research productivity (Li, & Xu, 2024) ^[25]. Padillo (2021) added that understanding the specific challenges and facilitating factors in the research process is essential for supporting teachers' research endeavors effectively. Effective mentoring relationships can significantly contribute to teachers' professional growth and research capacity.

Significant difference between Research performance and the Demographic Profile of the Respondents. The comparative examination of teachers' research performance by age is displayed in the table below. The findings suggested that there isn't a big difference. They are hence equivalent. This indicates that the age distribution of the District III teachers in Bunawan, Agusan del Sur is unaffected by the research performance. This is consistent with the findings of the Imlach *et al.* (2017) ^[21] study, which showed that lifelong participation in cognitively stimulating activities and distinct cognitive skills may both support academic success in older persons and that ageing does not inhibit performance or academic accomplishment. For the variable, the null hypothesis is thus accepted.

Comparative Analysis of Research Performance of Teachers in terms of Age. A study done by Börsch-Supan and Weiss (2016) ^[2] found that production generally increases until the age of 40 and then remains stable afterward. Furthermore, the data suggests that the average efficiency of individual workers consistently rises until they reach the age of 65. According to the OECD (2013) ^[27], individuals in their early 50s may have challenges in the labor market mostly as a result of their age. These beliefs are frequently justified by respondents based on their own experiences. Several managers argue that aging employees are linked to reduced profitability for the company. It is assumed that elderly workers possess lesser learning capacity and flexibility compared to younger ones. However, the findings of Göbel and Zwick's study (2012) ^[16] indicate that there are no direct age-related impacts on production.

Furthermore, there is a correlation between aging and declines in some abilities, including both physical and cognitive functions. Kenny, Groeller, and McGinn published a study in 2016 ^[23]. Nevertheless, the process of aging itself does not inherently lead to illness or decreased performance. The impact of aging on an individual's capabilities varies greatly and is influenced by factors such as regular physical activity and consistent practice of specific skills.

For example, physical strength can be associated with a lack of use, and it is not uncommon to find industrial working populations to show a conditioned pattern as a result of

years of physical work, thus strength and work capacity can be maintained as they grow old Strasser (2018) ^[33].

Comparative Analysis of Research Performance of Teachers in terms of Highest Educational Attainment. The results implied that there is no significant difference. Therefore, they are comparable. This means that teachers research performance does not affect the District III Teachers of Bunawan, Agusan del Sur in terms of highest educational attainment. This is in line with the findings of the study of Shuls and Trivitt (2015) ^[30], that advanced degrees had no significant relationship with students' test scores in the conduct of assessment. According to Henry *et al.* (2014), there was no significant difference in accomplishment scores between children whose instructors had a master's degree and those whose teachers had different sorts of degrees. Buddin and Zamarro (2010) ^[5] conducted an analysis of Math and reading standardized exam scores from elementary, middle, and high schools in Los Angeles, California over a period of five years. Their research findings indicated that the experience and education level of the teachers did not have a significant impact on an individual's academic performance. Thus, the null hypothesis is accepted with respect to the variable.

In addition, educational attainment is closely associated with various outcomes, such as income levels, job prospects, health outcomes, and social mobility. Studies by Hout and DiPrete (2020) ^[20] emphasize the long-term benefits of higher educational attainment, including higher earnings and lower unemployment rates. For instance, a study by Smith *et al.* (2019) ^[32] examined the impact of the highest educational attainment on income inequality. Jones and Brown (2021) ^[4] investigated the association between educational attainment and job satisfaction.

Comparative Comparison of Teachers' Research Performance According to Their Teaching Positions. The findings suggested that there isn't a big difference. They are hence equivalent. This indicates that the District III Teachers in Bunawan, Agusan del Sur are not impacted by their research performance in terms of their teaching positions. This is consistent with the research conducted by Boysen *et al.* (2019) ^[3], which found that recruiting practices at bachelor, master's, and doctorate schools are greatly impacted by variations in faculty positions. In one research, academics listed the qualities of job applications that would result in a prompt denial.

The comparative comparison of teachers' research performance according to their teaching positions is displayed in the table below. The findings suggested that there isn't a big difference. They are hence equivalent. This indicates that the District III Teachers in Bunawan, Agusan del Sur are not impacted by their research performance in terms of their teaching positions. This is consistent with the research conducted by Boysen *et al.* (2019) ^[3], which found that recruiting practices at bachelor, master's, and doctorate schools are greatly impacted by variations in faculty positions. In one research, academics listed the qualities of job applications that would result in a prompt denial. In contrast, academics at doctorate institutions believed that a poor publishing record was a death sentence; nevertheless, academics at master's and bachelor schools showed even less worry about it. Chairs evaluated the primary reasons applicants were recruited in additional research searches, going beyond the first screening of candidates. As per Day and Gu's (2014) findings, there are correlations that impact

the professional, role, and teaching positions of teachers, as well as their organizational identities, dedication, and resilience. The relationship between teacher identities and resilience as it relates to their professional identities, which empower them to be dedicated to improving the lives of their students in an era when educational environments are crowded with performativity agendas and initiatives that are centrally monitored and controlled. For the variable, the null hypothesis is thus accepted.

The work of Hargreaves and Fullan (2018) ^[18] emphasizes the importance of continuous professional development and the ability to adapt teaching methods to meet the diverse needs of students. It involves guiding and instructing students, designing and delivering lessons, assessing their progress, and creating an engaging and inclusive classroom environment. Teaching positions are at various levels, including primary, secondary, and higher education institutions. Recent literature has provided valuable insights to understand teaching positions and their evolving nature better. Darling-Hammond *et al.* (2017) ^[11] explored the importance of teacher quality and the correlation between teacher effectiveness and student achievement. Likewise, Johnson (2019) ^[32] investigated the impact of integrating technology into teaching practices. The research found that technology-enhanced instruction can potentially improve student engagement, collaboration, and critical thinking skills. It emphasized the importance of teachers' digital literacy and ability to integrate technology into their pedagogical approach effectively.

Comparative Analysis of Research Performance of Teachers in terms of Years in Service. The findings suggested that there isn't a big difference. They are hence equivalent. This indicates that the number of years of service for District III Teachers in Bunawan, Agusan del Sur is unaffected by a teacher's research performance.

This study supports the findings of the (Dixit, Goel, & Sharma, 2017) ^[15] study, which showed that workers over 45 and those with over ten years of service experience were much more happy than their peers. The study also indicated that factors connected to the workplace, organizational resources, benefits associated with the position, consideration for recommendations, prospects for advancement, and human resource concerns are important in raising the degree of job satisfaction. For the variable, the null hypothesis is thus accepted.

A study by Smith and Johnson (2018) demonstrated a positive correlation between service years and healthcare professionals' job satisfaction. Likewise, a study by Chen *et al.* (2019) ^[8] highlighted the relationship between years in service and organizational commitment in the corporate sector. By accumulating years in service, individuals and organizations gain valuable knowledge, skills, and insights, which enhance their performance and decision-making capabilities.

Additionally, years in service refer to the length of time an individual or an organization has been actively engaged in a particular occupation, profession, or industry. It serves as a measure of experience, expertise, and commitment, highlighting the accumulated knowledge and skills gained over some time. As time progresses, individuals and organizations tend to acquire a deeper understanding of their field, refine their processes, and adapt to changes in the industry landscape. This extended service period fosters trust and reliability, demonstrating the ability to deliver

quality outcomes consistently. Recent literature in this domain emphasizes the importance of continuous learning and development throughout one's years in service to stay relevant and agile in a rapidly evolving world (Smith *et al.*, 2019; Brown & Davidson, 2021) ^[32, 4]. These studies underscore the significance of leveraging the experience gained to enhance decision-making, mentorship, and innovation within an organization (Johnson, 2018; Davis & Lee, 2020) ^[12]. Consequently, years in service is a valuable metric that recognizes the value of time, effort, and dedication invested in a profession or industry.

Crafting of Research Management Plan. The fourth problem in this study dealt with the research management plan developed as the output in this study.

Part of the Research Management Plan is a Research Literacy Initiative designed for teachers of District III Bunawan, Agusan del Sur to enhance their research capability and drive their engagement in research-related endeavors. This will address the problems revealed in this study and provide more meaningful research exposures for teachers. Specifically, the project aims to (1) assist teachers in developing research capability in identified areas: the capability to conduct research, attitude towards research, motivation in writing research, research know-how, planning skills, and mentoring skills, (2) immerse teachers in hands-on and experiential training about research, (3) encourage teachers to participate in learning sessions until the research completion; (4) encourage the community of learning inside the school to develop an inclusive research culture.

The 21st-century teaching-learning landscape necessitates teachers to embody the research culture. Research capability among teachers helps find solutions to specific problems that arise in the classroom. It supports acquiring professional knowledge, skills, and understanding and connects teachers to networks and professional support. This enables teachers to lead more strategically and effectively, ultimately increasing their influence, power, and voice within their schools and throughout the profession. However, the study conducted by Bergin *et al.* (2023) ^[1] in a subject government elementary school found that teachers' capability in research needs engagement and improvement.

Similarly, teachers' engagement in research endeavors is found to be moderate. Since the study revealed that teachers' research capability drives engagement, it is therefore imperative that an intervention be initiated. Hence, project FRAME a literacy program is proposed.

Conclusion

Based from the findings, it can be concluded that teachers of District III of Bunawan, Agusan del Sur are generally with high performance in the field of research. It can be construed that teacher's attitude towards research, capability and motivation are also high. The action research skills which is an exemplary indicator.

However, it was found that on their level of difficulty is also high particularly in using research tools and techniques which need to be address.

More so, it is established that all grouping profiles identified in this study do not predict the difference in the teachers' level of research performance. Thus, age, educational attainment, position, and years in service cannot be considered as intervening factors. Further, the extent of

teacher's research performance is similar across profile groups. This indicates that the difference between teachers' research performance and demographic profile does not affect the output which is the crafting research management plan in this study.

Finally, interventions and continuous learning are necessary in order for the teachers to be generally improve and constantly uplift their research performance.

Recommendations

The study's findings lead to the following suggestions:

1. To the District Supervisor, may provide a networking or community of learning for research that brings together professional researchers and experts, principals, coordinators, and teachers, or may group them to develop a stronger research culture by sharing and exchanging ideas and collaborating on works and experiences for improving mentoring skills and update their difficulty in using research tools and techniques among teachers.
2. To the Principals of different schools, may propose a platform to intensify the motivation and encouragement in making quality research outputs among teachers. Aside from awards and recognition, the teachers may be incentivized by giving an extra budget or giving concrete and useful materials particularly for those teachers who were rated outstanding in their research output during the IPCR evaluation
3. To the teachers, since it was found that the research performance of teachers is generally high, the teachers still need seminars, trainings, and forums related to research as it continues the learning and improve research capability among them.

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